preventing alteration of the staging content by a user associated with a first access level; and

providing information selected from the group consisting of: log files, status information and combinations thereof.

51. (Amended) A method for publishing content on a computer network, the method comprising the steps of:

(a) generating the content on a staging server;

(b) replicating the content to at least first and second temporary directories;

(c) transferring substantially simultaneously the generated content from the staging server to first and second production servers associated with the first and second temporary directories, respectively; and

(d) providing the content to end users of the computer network in response to requests routed to either of the first and second production servers from the end users.

REMARKS

Claims 1-31, 33-41, 43-46 and 48-54 remain pending in this application for consideration. Claims 1, 3-12, 14, 19, 23-25, 28-30, 32-37, 41, 43-46 and 51 have been amended. Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version With Markings to Show Changes Made". As can be seen, independent Claims 1, 14, 30, 37, 41, 46 and 51 (and dependent Claims 3-12, 19, 23-25, 28-29, 32-36, 43-45 and 48-50) have been amended to further clarify the invention. Applicant respectfully submits that the added limitations were inherent in the existing limitations or in other claims and, thus, further searching is not required. Claims 42 and 47 have

been cancelled for the reason that the limitations provided therein are included in Claims 41 and 46, respectively, from which they depend.

The present invention is directed to a system and method for generating content on a staging server, and in turn transferring the content from the staging server to multiple production servers residing on a computer network such as the Internet. The content is automatically transferred from the staging server to the multiple production servers at substantially the same time in response to a publish command received on the staging server. In operation, each production server provides the content to end users of the computer network in response to requests routed to the production server from the end users. The present invention offers several advantages over the prior art, including: (1) providing for the automatic (vs. manual) publication of content to multiple production servers; and (2) transferring the content to multiple production servers at substantially the same time to thereby ensure that all end users will retrieve the same content regardless of the geographic location of the production server (*e.g.*, an end user accessing a production server located in San Francisco will retrieve the same content as an end user accessing a production server located in Boston).

In a first preferred embodiment, access to the staging server is restricted to two access levels. Specifically, a first user associated with a first access level is allowed to control the generation of content on the staging server, and a second user associated with a second access level is allowed to control the transfer of content from the staging server to the multiple production servers. This security feature ensures that only those individuals with the proper authorization can access the staging server to perform the "content generation" and/or "content transfer" tasks.

In a second preferred embodiment, the staging server can receive a rollback command that operatively replaces the content transferred from the staging server to the multiple production servers (the "staging content") with the content that was on the production servers prior to the transfer (the "production content"). The replacement of the staging content with the production content provides for a rollback to the previous version of the content if desired, such as if a problem is encountered with a particular production server during transfer of content.

Rejections Under 35 U.S.C § 103

The Examiner rejected Claims 1-54[1] under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,199,082 to Ferrel *et al.* ("Ferrel") in view of U.S. Patent No. 6,134,582 to Chang *et al.* ("Chang"). Ferrel discloses a multimedia publishing system that can be used to publish on-line newspapers, magazines and the like. In this system, two components of a single publication -- layout and content -- are separated and uploaded to a server that is accessible by end users of a computer network. The upload of the layout component of the publication to the server is performed on a limited basis (*e.g.*, upon initial creation of the publication) due to the fact that a publication's layout typically remains constant. However, because the content typically changes, the content component of the publication is uploaded to the server on a regular basis. In operation, when an end user initially downloads the publication, both the content and layout components of the publication are transmitted to the end user's computer. Subsequent downloads, however, transmit only the content component of the publication to the end user's computer because the layout component has been cached on the end user's computer after the initial download. Ferrel discloses that this publication scheme allows for the download of a

[1] It should be noted that Claim 32 has previously been cancelled from the application.

publication in bandwidth limited environments due to the fact that the layout component of the publication (which is typically bandwidth intensive) does not need to be transmitted to the end user after the initial download. Chang discloses a system and method that allows an end user to schedule the download of data such as web pages, databases or software, over a computer network such as the Internet.

Independent Claims 1, 14, 30, 37, 41, 46 and 51 of the present invention (from which the remaining claims depend) each include the limitation that a staging server automatically transfers content generated on the staging server to first and second (or a plurality of) production servers at substantially the same time in response to a publish command received on the staging server.[2] Neither Ferrel or Chang disclose this limitation.

First, neither Ferrel or Chang disclose a staging server that can be used to generate content. The portion of Ferrel relied on by the Examiner to support his proposition that Ferrel discloses such a staging server (Ferrel col. 10, lns. 23-25) merely states that, after creation, the layout and content components of a publication are published together to a public distribution point. This public distribution point is not a staging server used to generate content. Rather, the public distribution point merely stores the layout and content components of a publication for download by end users. See Ferrel col. 11, lns. 55-57.

In addition, neither Ferrel or Chang disclose the automatic transfer of a publication to first and second (or a plurality of) production servers at substantially the same time. The portions of Ferrel relied on by the Examiner to support his proposition that Ferrel does disclose this limitation simply do not teach this:

[2] Claims 37, 41 and 46 have been amended to include this limitation.

(1) "*the title and content are published together*" (Ferrel col. 10, lns. 24-25): this phrase merely refers to the fact that the layout (*i.e.*, "title") and content components of a single publication are published together;

(2) "*this is called dynamic title synthesis or dynamic synthesis, and allows content to be continually updated without need to modify and update*", etc. (Ferrel col. 10, lns. 59-61): this phrase and its subsequent text merely teaches that the content component of the publication can be updated without also updating the layout component of the publication;

(3) "*with OLE a particular application can create a structured hierarchy where the root file itself has many substorages*" (Ferrel col. 13, lns. 1-3)[3]: this phrase merely describes the manner in which the two components (layout and content) of a publication are designed and linked together during the development of the publication;

(4) "*the use of high bandwidth data delivery is within the scope of the present application*" (Ferrel col. 13, lns. 37-38)[4]: this phrase merely suggests that, although the publishing system of Ferrel is particularly well-suited for low bandwidth environments, it could also be used in connection with high bandwidth data delivery; and

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[3] The Examiner has mistakenly cited this phrase as Ferrel col. 11, lns. 1-3.

[4] The Examiner has mistakenly cited this phrase as Ferrel col. 11, lns. 37-38.

(5) "*it then acquires this information from the publication storage or local storage at customer workstation* [which could also be considered a production server] *and organizes it*" (Ferrel col. 13, lns. 53-55)[5]: this phrase and its preceding text merely teaches that when an end user selects a publication to be viewed, a "Viewer" examines the layout and content components of the publication to determine whether any information needs to be acquired and, if so, it acquires the information from the publication storage or local storage.

When read in context, none of the above-cited phrases from Ferrel disclose a staging server that automatically transfers a publication to multiple production servers at substantially the same time.

The Examiner also proposes that Ferrel teaches the claimed invention except for explicitly teaching "a scheduling system," and that Chang discloses a system for scheduling the download of data at a specified time. The independent claims, however, do not require "a "scheduling system." Rather, they require the generation of content on a staging server and automatic transfer of the generated content to a plurality of production servers at substantially the same time. In other words, instead of requiring the transfer of content from a single production server at a specified time, the independent claims require the transfer of content to a plurality of production servers at substantially the same time. The Examiner's attempt to use Chang to provide the missing link between Ferrel and the claimed invention misses the mark.

Furthermore, in his response to Applicant's amendment and response filed on August 13, 2001, the Examiner states that "[t]he limited structure claimed, without more functional

[5] The Examiner has mistakenly cited this phrase as Ferrel col. 11, lns. 53-55.

language, reads on the references provided." As shown above, however, the claims do not read on Ferrel and Chang. Rather, the Examiner has misapplied the disclosures of these references in an attempt to find support for his obviousness rejection:

> To draw on hindsight knowledge of the patented invention, when the prior art does not contain or suggest that knowledge, is to use the invention as a template for its own reconstruction – an illogical and inappropriate process by which to determine patentability.

Sensonics, Inc. v. Aerosonic Corp., 81 F.3d 1566, 38 U.S.P.Q.2d 1551 (Fed. Cir. 1996). See also In re Kotzab, 208 F.3d 1352, 54 U.S.P.Q.2d 1308 (Fed. Cir. 2000) (finding that the PTO "fell into the hindsight trap" in rejecting a patent's claims). Here, the Examiner has failed to cite a single reference that teaches the automatic transfer of content from a staging server to multiple production servers at substantially the same time. As such, he has failed to meet his burden of establishing a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 28 U.S.P.Q.2d 1955 (Fed. Cir. 1993) ("A prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art ... If the examiner fails to establish a prima facie case, the rejection is improper and will be overturned"). Therefore, Applicant respectfully submits that all of the claims are patentable over Ferrel and Chang.

Independent Claims 30 and 37 of the present invention (from which Claims 31-36 and 38-40 depend) include the additional limitation that access to the staging server is limited to at least two access levels. Specifically, a first user associated with a first access level is allowed to control generation of the content on the staging server, and a second user associated with a second access level is allowed to control transfer of the content from the staging server to the multiple production servers. Neither Ferrel or Chang disclose this limitation. The portion of

Chang cited by the Examiner (Chang col. 6, lns. 15-17) refers to the scheduled downloading of information from a web page in which a user ID and password are required to access the web page. The portion of Ferrel cited by the Examiner (Ferrel col. 12, ln. 59) refers to the structured storage technology that is used during the design and development of a publication. Neither of these references disclose a staging server having restricted access as claimed. In fact, Ferrel teaches away from restricted access by suggesting that a wide variety of different people have access to a publication during creation, such as editors, developers, writers, reporters, graphics artists, advertising sales staff and production staff. See Ferrel col. 16, ln. 30 to col. 18, ln. 29. Therefore, these claims can be further distinguished from Ferrel and Chang.

Independent Claims 41 and 46 of the present invention (from which Claims 42-45 and 47-50 depend) include the further limitation that the staging content transferred from the staging server to the multiple production servers can be subsequently replaced with previous production content in response to a rollback command received on the staging server. Neither Ferrel or Chang even remotely disclose this limitation. The Examiner suggests that such an "undo command" would inherently be part of the "advanced MPS features" disclosed at Ferrel col. 11, lns. 32-33. These "advanced MPS features," however, relate to the features available to an end user browsing a production server (*i.e.*, using a navigation tool such as MSN Explorer). They have absolutely nothing to do with commands sent to a staging server. Therefore, these claims can also be further distinguished from Ferrel and Chang.

In view of the foregoing amendments and remarks, it is respectfully submitted that the claims are now in condition for allowance and eventual issuance, and such action is respectfully requested. Should the Examiner have any further questions or comments which need be

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addressed in order to obtain allowance, he is invited to contact the undersigned attorney at the number listed below.

Acknowledgement of receipt is respectfully requested.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Claims 42 and 47 have been cancelled.

Claims 1, 3-12, 14, 19, 23-25, 28-30, 32-37, 41, 43-46 and 51 have been amended as follows:

1. (Twice Amended) A system for publishing network content, the system comprising:

(a) first and second production servers wherein each production server provides [for providing] content to end users of a computer network in response to requests routed to the production server from the end users [from at least one network]; and

(c) a staging [area] server operatively connected to each of the first and second production servers, [processors and the at least one network, the staging area for generating the content and automatically transferring the content to the first and second production servers] wherein content is generated on the staging server and wherein the generated content is automatically transferred from the staging server to the first and second production servers at substantially the same time in response to a publish command received on the staging server.

3. (Amended) The system of Claim 1 further comprising a firewall operable to limit access to the staging [area] server.

4. (Amended) The system of Claim 3 wherein the staging [area] server comprises a segmented server providing processing for a plurality of users.

5. (Amended) The system of Claim 3 wherein:

a same address is associated with the first production server and the staging [area] server; and

requests associated with the same address are routed to the staging [area] server in response to access through the firewall.

6. (Amended) The system of Claim 1 wherein the staging [area] server is operable to generate requests for additional content from the network.

7. (Amended) The system of Claim 1 wherein the staging [area] server is operable to schedule said transfer of the content.

8. (Amended) The system of Claim 7 wherein the staging [area] server is operable to cancel said scheduled transfer.

9. (Amended) The system of Claim 1 wherein the staging [area] server is operable to replace the content with subsequent content, the subsequent content comprising content previously transferred to the first production server.

10. (Amended) The system of Claim 1 wherein the staging [area] server is operable to prevent alteration of the content on the staging server.

11. (Amended) The system of Claim 1 wherein the staging [area] server is operable to provide information selected from the group consisting of: log files, status information and combinations thereof.

12. (Amended) The system of Claim 1 wherein the staging [area] server is operable to provide user selections for at least two actions selected from the group consisting of:

generating requests for additional content from the network;

scheduling said transfer of the content;

canceling said scheduled transfer;

replacing the content with subsequent content and controlling saving of the content;

preventing alteration of the content on the staging server, and

providing information selected from the group consisting of: log files, status information and combinations thereof.

14. (Twice Amended) A method for publishing content on a computer network, the method comprising the steps of:

(a) generating the content [in] on a staging [area] server;

(b) receiving a publish command [in] on the staging [area] server;

(c) automatically transferring the generated content from the staging server to first and second production servers at substantially the same time in response to step (b); and

(d) providing the content [in response to requests from] to end users of the computer network in response to requests routed to either of the first and second production servers from the end users [with at least one server selected from the group consisting of: the first and second production servers].

19. (Amended) The method of Claim 17:

wherein a same address is associated with the staging [area] server and the first production server;

further comprising: (f) routing requests to the staging [area] server in response to step (e).

23. (Amended) The method of Claim 14 further comprising step (e) of testing the content in the staging [area] server.

24. (Amended) The method of Claim 23 wherein step (e) comprises generating requests for additional content from the computer network from the staging [area] server.

25. (Amended) The method of Claim 14 further comprising step (e) of scheduling step (c) from the staging [area] server.

28. (Amended) The method of Claim 14 further comprising step (e) of providing information selected from the group consisting of: log files, status information and combinations thereof in the staging [area] server.

29. (Amended) The method of Claim 14 further comprising providing user selections for at least two actions selected from the group consisting of:

testing the interaction of the content with the computer network from the staging [area] server;

scheduling step (c);

canceling said scheduled transfer;

replacing the content on the first and second production servers with subsequent content, the subsequent content comprising content previously on the first and second production servers;

preventing alteration of the content [in] on the staging [area] server by a content user; and

providing information selected from the group consisting of: log files, status information and combinations thereof.

30. (Twice Amended) A method for publishing content on a computer network, the method comprising the steps of:

(a) providing a staging [area] server on the computer network;

(b) limiting access to the staging [area] server, the access comprising at least [two] first and second access levels;

(c) generating the content [in] on the staging [area] server;

(d) restricting step (c) in response to a command associated with [one of the at least two access levels] the first access level;

(e) receiving a publish command [in] on the staging [area] server; [and]

(f) automatically transferring the generated content from the staging server to first and second production servers at substantially the same time in response to step (e); and

(g) restricting step (f) in response to a command associated with the second access level.

33. (Amended) The method of Claim 30 further comprising:

[(e)] (h) replacing production content on a first production server with the content of step (c); and

[(f)] (i) reversing step [(e)] (h).

34. (Amended) The method of Claim 30 wherein step (f) comprises replacing the content of step (c) on the first and second production [server] servers with the production content.

35. (Amended) The method of Claim 30 wherein:

the [staging area comprises a] staging server [with] includes segmented software; and

step (c) comprises generating content for each of a plurality of users, each user associated with a segment of the segmented software.

36. (Amended) The method of Claim 30 further comprising providing user selections for at least two actions selected from the group consisting of:

testing the interaction of the content with the computer network from the staging [area] server;

scheduling a transfer of the content to a first production server;

canceling said scheduled transfer;

transferring the content to the first production server and a second production server in response to a publish command;

replacing content on the first production server with subsequent content, the subsequent content comprising content previously on the first production server;

preventing alteration of the content [in] on the staging [area] server by a user associated with a second of the at least two access levels; and

providing information selected from the group consisting of: log files, status information and combinations thereof.

37. (Twice Amended) A system for publishing content on a computer network, the system comprising:

a staging server and associated software comprising a staging area on the computer network, the staging area operable to allow generation of the content and transfer of the content from the staging area to [a production area] a plurality of production areas at substantially the same time; and

a firewall operable to limit access to the staging area to at least two access levels, the firewall operatively connected to the staging server;

wherein a first user associated with a first of the at least two access levels is allowed to control generation of the content, and wherein a second user associated with a second of the at least two access levels is allowed to control transfer of the content from the staging area to the production [area] areas.

41. (Amended) A method for publishing content on a computer network, the method comprising the steps of:

(a) providing a staging server and a plurality of production [areas] servers on the computer network, the staging [area] server associated with staging content and each of the production [area] servers associated with production content;

(b) replacing the production content on each of the production servers with the staging content at substantially the same time in response to a publish command associated with the staging [area] server; and

(c) replacing the staging content [in] on each of the production [area] servers with the production content at substantially the same time in response to a rollback command associated with the staging [area] server.

43. (Amended) The method of Claim 41 further comprising:

(d) limiting access to the staging [area] server to at least two access levels;

(e) generating the content [in] on the staging [area] server; and

(f) restricting step (e) in response to a command associated with one of the at least two access levels.

44. (Amended) The method of Claim 41 wherein:

the [staging area comprises a] staging server [with] includes segmented software; and

further comprising (d) generating content for each of a plurality of users, each user associated with a segment of the segmented software.

45. (Amended) The method of Claim 41 further comprising providing user selections associated with at least two actions selected from the group consisting of:

testing an interaction of the staging content with the computer network from the staging [area] server;

scheduling a transfer of the staging content to a first production server;

canceling said scheduled transfer;

transferring the staging content to the first production server and [a] the second production server in response to a publish command;

preventing alteration of the staging content by a user associated with a first access level; and

providing information selected from the group consisting of: log files, status information and combinations thereof.

46. (Amended) A system for publishing content on a computer network, the system comprising:

a staging [area] server associated with the computer network and with staging content;

[a production area] a plurality of production servers wherein each production server is associated with the computer network and with production content;

a staging [area] server user interface [for selecting] that allows a user to select a publish command associated with replacement of the production content on each of the production servers with the staging content at substantially the same time; and

wherein the staging [area] server user interface [provides] also allows the user to select a rollback [selection] command associated with replacement of the staging content [in the production area] on each of the production servers with the production content at substantially the same time.

48. (Amended) The system of Claim 46 further comprising a firewall for limiting access to the staging [area] server to at least two access levels; and

wherein the staging [area] server is operable to generate the staging content in response to input associated with the staging [area] server user interface and is operable to restrict the generation in response to a command associated with one of the at least two access levels.

49. (Amended) The system of Claim 46 wherein:

the [staging area comprises a] staging server [with] includes segmented software; and

the staging [area] server is operable to generate the staging content for each of a plurality of users, each user associated with a segment of the segmented software.

50. (Amended) The system of Claim 46 wherein the staging [area] server user interface is associated with user selections for at least two actions selected from the group consisting of:

testing an interaction of the staging content with the computer network from the staging [area] server;

scheduling a replacement of the production content with the staging content;

canceling said scheduled replacement;

replacing the production content on [a first and second production server] the plurality of production servers with the staging content in response to the publish command;

preventing alteration of the staging content by a user associated with a first access level; and

providing information selected from the group consisting of: log files, status information and combinations thereof.

51. (Amended) A method for publishing content on a computer network, the method comprising the steps of:

(a) generating the content [in] on a staging [area] server;

(b) replicating the content to at least first and second temporary directories;

(c) transferring substantially simultaneously the generated content from the staging server to first and second production servers associated with the first and second temporary directories, respectively; and

(d) providing the content to end users of the computer network in response to requests routed to either of the first and second production servers from the end users [from the

computer network with at least one server selected from the group consisting of: the first and second production servers].